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IN THE UNITED STATES PATENT AND TRADEMARK OFFICE
BEFORE THE BOARD OF PATENT APPEALS AND INTERFERENCES

Appellant:	Robert E. Lewis	**Appeal Brief**
Serial No.	09/993,320	
Filing Date	11/19/2001	
Group Art Unit	2116	
Examiner	James K. Trujillo	
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On November 28, 2005, Appellants filed a notice of appeal from the final rejection of claims 1-40 and 69-81 set forth in the Office Action mailed August 30, 2005. This Appeal Brief is accompanied by a fee in the amount of $ 500.00 as required under 37 C.F.R. §1.17(c).

1. **Real party in interest**

The real party in interest in the above-captioned application is the assignee ADC Telecommunications, Inc.

2. **Related appeals and interferences**

There are no other appeals or interferences known to the Appellants that will have a bearing on the Board's decision in the present appeal.

3. **Status of claims**

Claims 1-40 and 69-81 were rejected in an Office Action mailed August 30, 2005. The rejection of claims 1-40 and 69-81 is the subject of this appeal.

4. **Status of amendments**

No amendment has been filed subsequent to the Office Action mailed August 30, 2005.

5. **Summary of claimed subject matter**

Pursuant to 37 C.F.R. §41.37(c)(1)(v), Applicant provides the following concise explanation of the subject matter defined in each independent claim with reference to the specification by page and line number and to the drawings by reference number. Applicant submits that the citations to the specification and drawings are not intended to be exhaustive and that other support for the various claims may also be found throughout the specification and drawings.

A. Claim 1

Claim 1 is directed to a method of operating a communication device with a boot PROM. The method of claim 1 is described at least in the specification at p. 7, line 26 - p. 10, line 2 and is shown in Figure 3. The method involves initializing the communication device from routines stored on the boot PROM (302), reading a device ID indicating a model and revision from the communication device (304), sending the device ID to a management device over a communications link (306), initiating a firmware upgrade without administrator intervention based on the device ID, selecting a firmware at the management device (308), and downloading the firmware to the communication device (310). The method concludes with running the firmware on the communication device (312).

B. Claim 13

Claim 13 is directed to a method of operating a communication management device. The method of claim 13 is described at least in the specification at p. 11, line 13 - p. 12, line 21 and is shown in Figure 1. The method involves initializing one or more associated communication devices (100) from routines stored on a boot PROM (110) of each of the one or more associated communication devices (100), receiving a device ID (116) from each of the one or more associated communication devices (100) to determine whether any of the one or more associated communication devices (100) require a firmware upgrade, initiating a firmware upgrade without an administrator based on the device ID (116) of each of the one or more associated communication devices (100), and selecting a software program (114) associated with the device ID (116) of each of the one or more associated communication devices (100) that require a firmware upgrade. The method concludes with downloading the software program associated with the device ID (116) to each of the one or more associated communication devices (100) that require a firmware upgrade.

C. Claim 20

Claim 20 is directed to a method of operating a communication rack chassis with a management card and at least one communication card. The method of claim 20 is described at least in the specification at p. 11, line 13 - p. 12, line 21; p. 12, line 22 – p. 13, line 24 and is shown in Figures 1 and 2A. The method involves initializing the at least one communication card (202) from routines stored on a boot PROM (110) of the communication card, receiving a device ID (116) from each of the at least one communications card (202) to determine whether any of the one or more associated communication devices (100) require a firmware upgrade, initiating a firmware upgrade without an administrator based on the device ID (116) of each of the at least one communications card (202), and selecting a firmware program (114) associated with the device ID (116) of each of the at least one associated communication card (202) that require a firmware upgrade. The method concludes with downloading the firmware program associated with the device ID (116) to each of the at least one associated communication card (202) that requires a firmware upgrade.

D. Claim 27

Claim 27 is directed to a method of operating a communication system. The method of claim 27 is described at least in the specification at p. 11, line 13 - p. 12, line 21; p. 13, line 24 – p. 14, line 19 and is shown in Figures 1 and 2B. The method involves initializing one or more communication devices (222) from routines stored on a boot PROM (110) of each of the one or more communication devices, receiving a device ID (116) from each of one or more communication devices (222) at a management device (220), initiating a firmware upgrade without an administrator based on the device ID (116) of each of the one or more communication devices (222), and selecting a software program (114) associated with the device ID (116) of each of the one or more communication devices (222) that require a firmware upgrade. The method concludes with downloading the software program associated with the device ID (116) to each of the one or more communication devices (222) that require a firmware upgrade.

E. Claim 34

Claim 34 is directed to a method of operating an asymmetric digital subscriber line (ADSL) communication device with a boot PROM. The method of claim 34 is described at least in the specification at p. 7, line 26 - p. 10, line 2; p. 11, line 13 - p. 12, line 21; p. 12, line 22 – p. 13, line 24 and is shown in Figures 1, 2A and 3. The method involves initializing the ADSL communication device (202) from routines stored on the boot PROM (110, 302), reading a device ID (110) indicating a model and revision from the ADSL communication device (202, 304), sending the device ID (110) to a management device (208) over a communications link (104, 306), initiating a firmware upgrade without an administrator based on the device ID (110), selecting a firmware for the communication device (202) at the management device (308), and downloading the firmware to the ADSL communication device (202, 310). The method concludes by running the firmware on the ADSL communication device (202, 312).

F. Claim 69

Claim 69 is directed to a machine-usable medium having machine-readable instructions stored thereon for execution by a processor of a telecommunication device to perform a method. The method of claim 69 is described at least in the specification at p. 7, line 26 - p. 10, line 2; p. 11, line 13 - p. 12, line 21; p. 12, line 22 – p. 13, line 24 and is shown in Figures 1, 2A and 3. The method involves initializing the telecommunication device (100) from routines stored on a boot PROM (110, 302) of the telecommunications device, reading a device ID (116) indicating a model and revision from the telecommunication device (100, 304), sending the device ID to a management device (208) over a communications link (104, 306), initiating a firmware upgrade without an administrator based on the device ID (116), selecting a firmware for the telecommunications device (100) at the management device (308), downloading the selected firmware to the telecommunication device (100, 310); and running the firmware on the telecommunication device (100, 312).

G. Claim 75

Claim 75 is directed to a machine-usable medium having machine-readable instructions stored thereon for execution by a processor of a telecommunications management device to perform a method. The method of claim 75 is described at least in the specification at p. 11, line 13 - p. 12, line 21; p. 13, line 24 – p. 14, line 19 and is shown in Figures 1 and 2B. The method involves initializing one or more associated telecommunication devices (100) from routines stored on a boot PROM (110), receiving a device ID (116) from each of one or more associated telecommunication devices (100), initiating a firmware upgrade without an administrator based on the device ID (116) of each of the one or more associated telecommunication devices (100), and selecting a firmware program (114) associated with the device ID (116) of each of one or more telecommunication devices (100) that require a firmware upgrade. The method concludes with downloading the firmware program associated with the device ID (116) to each of one or more telecommunication devices (100) that require a firmware upgrade.

H. Claim 81

Claim 81 is directed to a method of operating a telecommunication device having a boot PROM, a communications interface, a device ID storage media, and a processor coupled to the boot PROM, the device ID storage media, and the communications interface. The method of claim 81 is described at least in the specification at p. 7, line 26 - p. 10, line 2; p. 11, line 13 - p. 12, line 21; p. 13, line 24 – p. 14, line 19 and is shown in Figures 1, 2B and 3. The method involves initializing the telecommunication device (100) from routines stored on the boot PROM (110, 302), reading a device ID (116) indicating a model and revision from the telecommunication device (100, 304), sending the device ID to a management device (220) over a communications link (228, 306), initiating a firmware upgrade without an administrator based on the device ID (116), selecting a firmware at the management device (308), and downloading the firmware to the telecommunication device (100, 310). The method concludes with running the firmware on the telecommunication device (100, 312).

6. **Grounds of rejection to be reviewed on appeal**

Whether claims 27-29, 32, 75-77, 79-80 are rejected under 35 U.S.C. §102(e) as being anticipated by Ha (U.S. Patent No. 6,175,919)?

Whether claims 33 and 78 are rejected under 35 U.S.C. §103(a) as being unpatentable over Ha?

Whether claims 1-5, 7, 10, 12, 13, 15-19, 30, 69-73 and 81 are rejected under 35 U.S.C. §103(a) as being unpatentable over Ha in view of Itoh et al. (U.S. Patent No. 6,795,912)?

Whether claims 6, 8, 9, 11 and 74 are rejected under 35 U.S.C. §103(a) as being unpatentable over Ha and Itoh in view of Ishibashi et al. (U.S. Patent No. 6,654,820)?

Whether claim 14 are rejected under 35 U.S.C. §103(a) as being unpatentable over Ha together with Itoh in view of Treu (U.S. Patent No. 5,245,615)?

Whether claim 31 is rejected under 35 U.S.C. §103(a) as being unpatentable over Ha in view of Ishibashi?

Whether claims 20-22 and 25-26 are rejected under 35 U.S.C. §103(a) as being unpatentable over Ha in view of Itoh and Applicant's Admitted Prior Art (AAPA)?

Whether claim 24 is rejected under 35 U.S.C. §103(a) as being unpatentable over Ha and Applicant's Admitted Prior Art (AAPA) and Itoh in further view of Ishibashi?

Whether claims 34-37 and 39-40 are rejected under 35 U.S.C. §103(a) as being unpatentable over Ha in further view of Itoh and Comer, "Computer Networks and Internets"?

Whether claim 38 is rejected under 35 U.S.C. §103(a) as being unpatentable over Ha, Itoh and Comer in further view of Ishibashi?

7. **Argument**

A. Rejection of claims under 35 U.S.C. §102(e).

i. The Applicable Law

35 U.S.C. § 102 provides in relevant part:

A person shall be entitled to a patent unless-

(e) the invention was described in — (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for the purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

A claim is anticipated under 354 U.S.C. § 102 only if each and every element as set forth in the claim is found, either expressly or inherently, in a single prior art reference. *Verdegaal Bros. v. Union Oil Co. of California*, 814 F.2d 628, 631, 2 U.S.P.Q.2d 1051, 1053 (Fed. Cir. 1987). "The identical invention must be shown in as complete detail as is contained in the...claim." *Richardson v. Suzuki Motor Co.* 868 F.2d 1226, 1236, 9 U.S.P.Q.2d 1913, 1920 (Fed. Cir. 1989). The elements must be arranged as required by the claim, but identical terminology is not required. *In re Bond*, 910 F. 2d 831, 15 U.S.P.Q.2d 1566 (Fed. Cir. 1990).

Anticipation focuses on whether a claim reads on a product or process disclosed in a prior art reference, not on what the reference broadly teaches. *Kalman v. Kimberly-Clark Corp.*, 713 F.2d 760, 218 U.S.P.Q. 781 (Fed. Cir. 1983). To anticipate a claim, a reference must disclose every element of the challenged claim and enable one skilled in the art to make the anticipating subject matter. *PPG Industries, Inc. v. Guardian Industries Corp.*, 75 F.3d 1558, 37 U.S.P.Q. 2d 1618 (Fed Cir. 1996)

ii. Rejection of claims 27-29, 32, 75-77, 79-80

The Examiner rejected claims 27-29, 32, 75-77 and 79-80 under 35 U.S.C. §102(e) as being anticipated by Ha (U.S. Patent No. 6,175,919).

Claim 27 of the present application is an independent claim. Claim 27 is directed to a method of operating a communications system. The method includes the element of "initiating a firmware upgrade without an administrator based on the device ID of each of the one or more communication devices."

The Examiner failed to make out a *prima facie* case of anticipation under Section 102(e). For example, Ha fails to teach or suggest initiating a firmware upgrade without an administrator based on the device ID of each of the one or more communication devices as recited in claim 27. In contrast, the Examiner took the position that "initiating a firmware upgrade without an administrator (the personal computers request their BIOS to be upgraded [in] col. 4, lines 28-37) based on the device ID of each of the one or more communication devices (upgrade of the BIOS is based according to the ID, col. 4, lines 45-60)". Final Office Action, paragraph 5, section d.

The portions of Ha cited by the Examiner in the Final Office Action are completely silent as to "initiating a firmware upgrade without an administrator based on the device ID" as recited in claim 27. Moreover, the Final Office Action contains no explanation as to how the cited portions of Ha inherently or otherwise teach initiating an upgrade *based on the device ID* as recited in claim 27. Indeed, Ha clearly indicates that a user or main personal computer (PC) is used to determine whether an upgrade is required. Ha, for example, states that:

> Referring to FIG. 5, in the process of transferring the BIOS upgrade software and BIOS image executed in the host computer (HOST), in step S50, it is determined whether the BIOS is requested to be upgraded by the personal computer. If not, a continuous check is made as to whether the BIOS is requested to be upgraded. When it is determined that the BIOS is requested to be upgraded during step S50, a model ID is obtained from the personal computer (step S51). In step S52, the BIOS image and the BIOS upgrade software corresponding to the model ID are read from the storage device (HDD) of the host computer (HOST), and are loaded into a memory. In step S53, the corresponding BIOS image and BIOS upgrade software are transferred to the personal computer which requested the BIOS to be upgraded through the multiplexer (MUX) using serial communication.

(*See* Ha, Col. 4, lines 45-60; emphasis added). Also, *See* Ha, FIG. 5.

In step S52, the model ID obtained from the personal computer (in step S51) is used to *load* the corresponding BIOS image and BIOS upgrade software into a memory

to transfer (in step S53) to the personal computer that requested the BIOS to be upgraded (earlier in step S50), and not to *initiate* a firmware upgrade without an administrator as recited in claim 27.

Accordingly, it is respectfully submitted that the Examiner erred in rejecting claim 27 of the present application under 35 USC § 102(e). Reversal of the rejection is respectfully requested.

Claims 28, 29 and 32 of the present application ultimately depend from claim 27 and therefore the arguments set forth above with respect to claim 27 also apply to this claim as well.

Accordingly, reversal of the rejection of claims 28, 29 and 32 under 35 U.S.C. §102(e) is respectfully requested.

Claim 75 of the present application is an independent claim. Claim 75 is directed a machine-usable medium having machine-readable instructions stored thereon for execution by a processor of a telecommunications management device to perform a method. The Examiner rejected claim 75 on the same basis as claim 27. Therefore, the arguments set forth above with respect to claim 27 apply to claim 75 as well.

Accordingly, it is respectfully submitted that the Examiner erred in rejecting claim 75 of the present application under 35 USC § 102(e). Reversal of the rejection is respectfully requested.

Claims 76, 77, 79 and 80 of the present application ultimately depend from claim 75 and therefore the arguments set forth above with respect to claim 75 also apply to these claims as well.

Accordingly, reversal of the rejection of claims 76, 77, 79 and 80 under 35 U.S.C. §102(e) is respectfully requested.

B. Rejection of claims under 35 U.S.C. § 103(a)

i. The Applicable Law

35 U.S.C. § 103 provides in relevant part:

Conditions for patentability, non-obvious subject matter.

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

"The ultimate determination...whether an invention is or not obvious is a legal conclusion based on underlying factual inquiries including (1) the scope and content of the prior art; (2) the level of ordinary skill in the prior art; (3) the differences between the claimed invention and the prior art; and (4) the objective evidence of nonobviousness." *In re Dembiczak*, 175 F.3d 994, 998, 50 USPQ2d 1614, 1616 (1999) (citing *Graham v. John Deere Co.*, 383 U.S. 1, 17-18, 148 USPQ 459, 467 (1966)).

When applying 35 U.S.C. §103(a), the claimed invention must be considered as a whole; the references must be considered as a whole and must suggest the desirability and thus the obviousness of making the combination; the references must be viewed without the benefit of impermissible hindsight afforded by the claimed invention and a reasonable expectation of success is the standard with which obviousness is determined. *Hodosh v. Block Drug Co., Inc.*, 786 F.2d 1136, 1143 n.5, 229 USPQ 182, 187 n.5 (Fed. Cir. 1986).

To establish a *prima facie* case of obviousness, three basic criteria must be met. First, there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or to combine teachings in the references. Second, there must be a reasonable expectation of success. Finally, the prior art reference (or references when combined) must teach or suggest all the claim limitations. MPEP 2143.

The teaching or suggestions to make the claimed combination and the reasonable expectation of success must both be found in the prior art, not in the applicant's

disclosure. MPEP 2143 citing *In re Vaeck*, 947 F.2d 488, 20 USPQ2d 1438 (Fed. Cir. 1991).

ii. Rejection of claims 33 and 78

The Examiner rejected claims 33 and 78 under 35 U.S.C. §103(a) as being unpatentable over Ha.

Claim 33 of the present application is an dependent claim that depends directly from claim 32 and indirectly from claim 27. Claim 27 is an independent claim. Claim 27 is directed to a method of operating a communications system. Claim 33 is further directed to "wherein [the] repository of software program is updated remotely across a communication link of the communications system."

With respect to claim 33, Applicant respectfully refers the Board to the arguments presented above with respect to claim 27 and asserts that claim 33 is not unpatentable over Ha.

Accordingly, it is respectfully submitted that the Examiner erred in rejecting claim 33 of the present application under 35 USC § 103(a). Reversal of the rejection is respectfully requested.

Claim 78 of the present application is an dependent claim that depends directly from claim 77 and indirectly from claim 75. Claim 75 is an independent claim. Claim 75 is directed to a machine-usable medium having machine-readable instructions stored thereon for execution by a processor of a telecommunications management device to perform a method. Claim 78 is further directed to "wherein [the] repository of firmware is updated remotely across a communication link."

With respect to claim 78, Applicant respectfully refers the Board to the arguments presented above with respect to claims 27 and 75 and asserts that claim 78 is not unpatentable over Ha. Accordingly, it is respectfully submitted that the Examiner erred in rejecting claim 78 of the present application under 35 USC § 103(a). Reversal of the rejection is respectfully requested.

iii. Rejection of claims 1-5, 7, 10, 12, 13, 15-19, 30, 69-73 and 81

The Examiner rejected claims 1-5, 7, 10, 12, 13, 15-19, 30, 69-73 and 81 under 35 U.S.C. §103(a) as being unpatentable over Ha in view of Itoh et al. (U.S. Patent No. 6,795,912).

Claim 1 is an independent claim. Claim 1 is directed to a method of operating a communication device with a boot PROM. The method includes the element of "initiating a firmware upgrade without administrator intervention based on the device ID."

Itoh does not overcome the deficiencies of Ha and neither Ha nor Itoh, alone or in combination, teach or suggest the method of claim 1.

Further, Applicant finds no reasonable expectation of success in combining these references. Applicant does not find that Itoh teaches or suggests initiating a firmware upgrade without administrator intervention based on the device ID as found in claim 1. In contrast, Itoh discusses:

> Furthermore, hereinbefore, the verification of whether a user is valid is performed after download, the present invention is not limited to this. For example, if download is requested in such a mode of viewing a homepage and downloading necessary information, it can be performed to allow the user to download the information only if a server collates a password and an IP address and verifies that the user is valid. Moreover, in such a mode of viewing a homepage and downloading necessary information, if, for example, the download of an application updating a BIOS is requested, it can be performed to permit only a download request from a computer if a server verifies a model and production date, or BIOS version of the requester's computer and judges that the update of the BIOS is necessary.

(See Itoh, Col. 18, lines 28-37; emphasis added*)* Applicant respectfully asserts that the Itoh reference teaches away from the present application. Itoh will perform a requested "download of an application updating a BIOS" only "if a server collates a password and an IP address and verifies that the user is valid." Applicant contends that the above passage from Itoh constitutes administrator intervention. There is no discussion, in either Ha or Itoh, of initiating a firmware upgrade without administrator intervention based on the device ID as the Examiner suggests. Applicant respectfully

asserts that even if the two references could be combined, they do not teach or suggest the method of claim 1.

Accordingly, it is respectfully submitted that the Examiner erred in rejecting claim 1 of the present application under 35 USC § 103(a). Reversal of the rejection is respectfully requested.

Claims 2-5, 7, 10, and 12 of the present application ultimately depend from claim 1 and therefore the arguments set forth above with respect to claim 1 also apply to these claims as well.

Accordingly, reversal of the rejection of claims 2-5, 7, 10, and 12 under 35 U.S.C. §103(a) is respectfully requested.

Claim 13 is an independent claim. Claim 13 is directed to a method of operating a communications management device.

With respect to claim 13, Applicant respectfully refers the Board to the arguments presented above with respect to claim 1 and asserts that claim 13 is not unpatentable over Ha in view of Itoh.

Accordingly, it is respectfully submitted that the Examiner erred in rejecting claim 13 of the present application under 35 USC § 103(a). Reversal of the rejection is respectfully requested.

Claims 15 and 17-19 of the present application ultimately depend from claim 13 and therefore the arguments set forth above with respect to claim 13 also apply to these claims as well.

Accordingly, reversal of the rejection of claims 15 and 17-19 under 35 U.S.C. §103(a) is respectfully requested.

Claim 30 is dependent upon independent claim 27. With respect to claim 30, Applicant respectfully refers the Board to the arguments presented above with respect to claim 27 and asserts that claim 30 is not unpatentable over Ha in view of Itoh.

Accordingly, it is respectfully submitted that the Examiner erred in rejecting claim 30 of the present application under 35 USC § 103(a). Reversal of the rejection is respectfully requested.

Claim 69 is a independent claim. Claim 69 is directed to a machine-usable medium having machine-readable instructions stored thereon for execution by a processor of a telecommunication device to perform a method. The Examiner rejected claim 69 on the same basis as claim 1. Therefore, the arguments set forth above with respect to claim 1 apply to claim 69 as well. Reversal of the rejection is respectfully requested.

Claims 70-73 of the present application ultimately depend from claim 69 and therefore the arguments set forth above with respect to claim 69 also apply to these claims as well.

Accordingly, reversal of the rejection of claims 70-73 under 35 U.S.C. §103(a) is respectfully requested.

Claim 81 is a independent claim. In a telecommunication device having a boot PROM, a communications interface, a device ID storage media, and a processor coupled to the boot PROM, the device ID storage media, and the communications interface, claim 81 is directed to a method of operating the telecommunication device. The Examiner rejected claim 81 on the same basis as claim 1. Therefore, the arguments set forth above with respect to claim 1 apply to claim 81 as well. Reversal of the rejection is respectfully requested.

iv. Rejection of claims 6, 8, 9, 11 and 74

The Examiner rejected claims 6, 8, 9, 11 and 74 under 35 U.S.C. §103(a) as being unpatentable over Ha and Itoh in view of Ishibashi et al. (U.S. Patent No. 6,654,820).

Claim 6 of the present application is an dependent claim that depends directly from claim 3 and indirectly from claim 1. Claim 1 is an independent claim. Claim 1 is directed to a method of operating a communication device with a boot PROM. Claim 3 is further directed to "further comprising storing [the] downloaded firmware into a non-volatile machine usable storage media." Claim 6 is further directed to "wherein the boot PROM [routines] and device ID are stored on the non-volatile machine usable storage media."

With respect to claim 6, Applicant respectfully refers the Board to the arguments presented above with respect to claim 1 and asserts that claim 6 is not unpatentable over Ha in view of Itoh.

Further, the Examiner correctly indicates that neither "Ha nor Itoh disclose wherein the device ID is stored on the non-volatile machine usable storage media." (Final Office Action, paragraph 38.) The Examiner asserts that Ishibashi "teaches a device ID stored on non-volatile machine usable storage media" and "teaches a system that is similar to that of Ha in that both systems have a device ID and both use the BIOS for some type of management of the device ID." (Final Office Action, paragraph 38.) As stated above with respect to claim 1, neither Ha nor Itoh teach or suggest initiating a firmware upgrade without administrator intervention based on the device ID as found in claim 1. The addition of Ishibashi does not cure this defect.

In contrast, Ishibashi discusses "Management of the enciphering/decoding of contents with use of the medium ID is executed by a secure manager 112 which is software specialized for management." *(See* Ishibashi, Col. 4, lines 19-21; emphasis added) and "The secure manager 112 issues an ID obtain request to the BIOS" *(See* Ishibashi, Col. 7, lines 2-3; emphasis added.) The system shown in Figure 1 of Ishibashi and discussed above requires a secure manager to issue an ID obtain request before transferring data to the BIOS and the Final Office Action is proposing modifying Ha with additional management software as discussed above with respect to Ishibashi. In other words, the proposed combination requires *an ID obtain request.* It is unclear as to how such a proposed combination results in teaching or suggesting the method of claim 6. It is respectfully submitted that the stated motivation for the proposed combination is

improper, and that the references, alone or in combination, do not teach or suggest the method of claim 6.

Accordingly, it is respectfully submitted that the Examiner erred in rejecting claim 6 of the present application under 35 USC § 103(a). Reversal of the rejection is respectfully requested.

Claims 8, 9, and 11 of the present application ultimately depend from claim 1 and therefore the arguments set forth above with respect to claims 1 and 6 also apply to these claims as well.

Accordingly, reversal of the rejection of claims 8, 9 and 11 under 35 U.S.C. §103(a) is respectfully requested.

Claim 74 of the present application ultimately depends from claim 69 and therefore the arguments set forth above with respect to claims 6 and 69 also apply to claim 74.

Accordingly, reversal of the rejection of claim 74 under 35 U.S.C. §103(a) is respectfully requested.

v. Rejection of claim 14

The Examiner rejected claim 14 under 35 U.S.C. §103(a) as being unpatentable over Ha together with Itoh in view of Treu (U.S. Patent No. 5,245,615).

Claim 14 depends directly from claim 13. Claim 13 is directed to a method of operating a communications management device. Claim 14 further includes "receiving a device ID from each of one or more communication devices further comprises receiving a device ID that uniquely identifies the communication device."

With respect to claim 14, Applicant respectfully refers the Board to the arguments presented above with respect to claim 13 and asserts that claim 14 is not unpatentable over Ha in view of Itoh.

Further, the Examiner correctly indicates that "Ha does not disclose receiving a device ID that uniquely identifies the communication device." (Final Office Action, paragraph 34.) The Examiner asserts that it "would have been obvious to one of ordinary skill in the art, having the teachings of Ha, Itoh, and Treu before them at the time the invention was made, to modify the device ID of Ha to include a device ID that uniquely identifies the communication device." (Final Office Action, paragraph 44.) As stated above with respect to claim 13, neither Ha nor Itoh teach or suggest initiating a firmware upgrade without an administrator based on the device ID as found in claim 13. The addition of Treu does not cure this defect.

In contrast, Treu discusses "During the course of OS initialization step 110, step 112 reads error log 88 and analyzes any entries therein to determine whether the computer can be reconfigured in step 114 so as to allow the computer to be operated even though a non-critical error has occurred." *(See* Treu, Col. 4, lines 20-25; emphasis added) The system shown in Figure 1 of Treu and discussed above will reconfigure the computer based on an error log analysis, and not on the device ID, and the Final Office Action is proposing modifying Ha with the method as discussed above with respect to Treu. In other words, the proposed combination requires *an error log analysis, and is not based on the device ID*. It is unclear as to how such a proposed combination results in teaching or suggesting the method of claim 14. It is respectfully submitted that the stated motivation for the proposed combination is improper, and that the references, alone or in combination, do not teach or suggest the method of claim 14.

Accordingly, it is respectfully submitted that the Examiner erred in rejecting claim 14 of the present application under 35 USC § 103(a). Reversal of the rejection is respectfully requested.

vi. Rejection of claim 31

The Examiner rejected claim 31 under 35 U.S.C. §103(a) as being unpatentable over Ha in view of Ishibashi.

Claim 31 depends directly from claim 27. Claim 27 is directed to a method of operating a communications system. Claim 31 further includes "wherein [the] boot PROM and device ID are stored on a single machine readable storage medium of each of [the] one or more communication devices."

With respect to claim 31, Applicant respectfully refers the Board to the arguments presented above with respect to claims 1 and 6 and asserts that claim 31 is not unpatentable over Ha in view of Ishibashi. Accordingly, it is respectfully submitted that the Examiner erred in rejecting claim 31 of the present application under 35 USC § 103(a). Reversal of the rejection is respectfully requested.

vii. Rejection of claims 20-22 and 25-26

The Examiner rejected claims 20-22 and 25-26 under 35 U.S.C. §103(a) as being unpatentable over Ha in view of Itoh and Applicant's Admitted Prior Art (AAPA).

Claim 20 is an independent claim. Claim 20 is directed to a method of operating a communications rack chassis with a management card and at least one communication card. With respect to claim 20, Applicant respectfully refers the Board to the arguments presented above with respect to claim 1 and asserts that claim 20 is not unpatentable over Ha in view of Itoh and AAPA.

Moreover, as indicated earlier, impermissible hindsight cannot be used to make a rejection under 35 U.S.C. §103(a). Applicant maintains that the Examiner is impermissibly using the present application as a road map in making the rejection. However, as indicated above, even with the use of hindsight the rejection falls short because neither Ha nor Itoh teach "initiating a firmware upgrade without an administrator based on the device ID of each of the at least one communications card" as found in claim 20.

Accordingly, it is respectfully submitted that the Examiner erred in rejecting claim 20 of the present application under 35 USC § 103(a). Reversal of the rejection is respectfully requested.

Claims 21-22 and 25-26 of the present application ultimately depend from claim 20 and therefore the arguments set forth above with respect to claim 20 also apply to these claims as well.

Accordingly, reversal of the rejection of claims 21-22 and 25-26 under 35 U.S.C. §103(a) is respectfully requested.

viii. Rejection of claim 24

The Examiner rejected claim 24 under 35 U.S.C. §103(a) as being unpatentable over Ha and Applicant's Admitted Prior Art (AAPA) and Itoh in further view of Ishibashi

Claim 24 depends from claim 20. Claim 24 further includes "wherein [the] boot PROM and device ID are stored on a single machine readable storage medium of each of the at least one communication card."

With respect to claim 24, Applicant respectfully refers the Board to the arguments presented above with respect to claims 1 and 6 and asserts that claim 24 is not unpatentable over Ha and AAPA and Itoh in further view of Ishibashi

Moreover, as indicated earlier, impermissible hindsight cannot be used to make a rejection under 35 U.S.C. §103(a). Applicant maintains that the Examiner is impermissibly using the present application as a road map in making the rejection. However, as indicated above, even with the use of hindsight the rejection falls short because neither Ha, Itoh or Ishibashi teach "initiating a firmware upgrade without an administrator based on the device ID of each of the at least one communications card" as found in independent claim 20 from which claim 24 depends.

Accordingly, it is respectfully submitted that the Examiner erred in rejecting claim 24 of the present application under 35 USC § 103(a). Reversal of the rejection is respectfully requested.

ix. Rejection of claims 34-37 and 39-40

The Examiner rejected claims 34-37 and 39-40 under 35 U.S.C. §103(a) as being unpatentable over Ha in further view of Itoh and Comer, "Computer Networks and Internets."

Claim 34 is an independent claim. Claim 34 is directed to a method of operating an asymmetric digital subscriber line (ADSL) communication device with a boot PROM.

With respect to claim 34, Applicant respectfully refers the Board to the arguments presented above with respect to claim 1 and asserts that claim 34 is not unpatentable over Ha in view of Itoh.

Further, the Examiner correctly indicates that "Ha also does not disclose wherein the communication device is an asymmetrical digital subscriber line (ADSL) communication device." (Final Office Action, page 30) The Examiner asserts that it "would have been obvious to one of ordinary skill in the art, having the teachings of Ha and Comer before them at the time the invention was made to modify Ha to use an ADSL communication device as his communication device." (Final Office Action, page 30) As stated above with respect to claim 1, neither Ha nor Itoh teach or suggest initiating a firmware upgrade without an administrator based on the device ID as found in claim 34. The addition of Comer does not cure this defect. Applicant respectfully contends that the basis for combining Ha and Comer in rejecting claim 34 under 35 U.S.C. §103(a) is unfounded. The Examiner has failed to establish a sufficient showing why Ha suffers from the need to "optimize data transfer for users that typically receive much more information than they receive resulting in optimized data transfer." (Final Office Action, page 30) Applicant maintains that the Examiner is impermissibly using the present application as a road map in making the rejection, and respectfully asserts that the references, alone or in combination, do not teach or suggest the method of claim 34.

Accordingly, it is respectfully submitted that the Examiner erred in rejecting claim 34 of the present application under 35 USC § 103(a). Reversal of the rejection is respectfully requested.

Claims 35-37 and 39-40 of the present application directly depend from claim 34 and therefore the arguments set forth above with respect to claim 34 apply to these claims as well.

Accordingly, reversal of the rejection of claims 35-37 and 39-40 under 35 U.S.C. §103(a) is respectfully requested.

x. Rejection of claim 38

The Examiner rejected claim 38 under 35 U.S.C. §103(a) as being unpatentable over Ha, Itoh and Comer in further view of Ishibashi

Claim 38 depends directly from claim 34. Claim 38 further includes "wherein the boot PROM and device ID are stored on a single machine readable storage medium of the ADSL communication device."

With respect to claim 38, Applicant respectfully refers the Board to the arguments presented above with respect to claims 1, 6 and 34 and asserts that claim 38 is not unpatentable over Ha, Itoh and Comer in further view of Ishibashi

Accordingly, it is respectfully submitted that the Examiner erred in rejecting claim 38 of the present application under 35 USC § 103(a). Reversal of the rejection is respectfully requested.

Respectfully submitted,

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CLAIMS APPENDIX

1. (Previously presented) A method of operating a communication device with a boot PROM, comprising:

initializing the communication device from routines stored on the boot PROM;

reading a device ID indicating a model and revision from the communication device;

sending the device ID to a management device over a communications link;

initiating a firmware upgrade without administrator intervention based on the device ID;

selecting a firmware at the management device;

downloading the firmware to the communication device; and

running the firmware on the communication device.

2. (Original) The method of claim 1, further comprising:

storing the downloaded firmware into a RAM memory.

3. (Original) The method of claim 1, further comprising:

storing the downloaded firmware into a non-volatile machine usable storage media.

4. (Original) The method of claim 3, wherein the non-volatile machine usable storage media is selected from the group consisting of a Flash memory device, an electrically erasable programmable read only memory (EEPROM) device, and a one time programmable (OTP) device.

5. (Original) The method of claim 3, wherein the boot PROM routines are stored on the non-volatile machine usable storage media.

6. (Original) The method of claim 3, wherein the boot PROM routines and device ID are stored on the non-volatile machine usable storage media.

7. (Original) The method of claim 1, further comprising:

sending a version identifier of a stored firmware from a non-volatile machine usable storage media to the management device.

8. (Original) The method of claim 1, wherein the device ID is read from a machine readable storage device.

9. (Original) The method of claim 8, wherein the device ID storage device is selected from the group consisting of a Flash memory device, a read only memory (ROM), an electrically erasable programmable read only memory (EEPROM) device, and a one time programmable (OTP) device.

10. (Original) The method of claim 1, wherein the boot PROM is selected from the group consisting of a Flash memory device, a read only memory (ROM), an electrically erasable programmable read only memory (EEPROM) device, and a one time programmable (OTP) device.

11. (Original) The method of claim 1, wherein the boot PROM and device ID are stored on a single machine readable storage medium.

12. (Original) The method of claim 1, wherein downloading firmware comprises downloading diagnostic firmware.

13. (Previously presented) A method of operating a communications management device, comprising:

initializing one or more associated communication devices from routines stored on a boot PROM of each of the one or more associated communication devices;

receiving a device ID from each of the one or more associated communication devices to determine whether any of the one or more associated communication devices require a firmware upgrade;

initiating a firmware upgrade without an administrator based on the device ID of each of the one or more associated communication devices;

selecting a software program associated with the device ID of each of the one or more associated communication devices that require a firmware upgrade; and

downloading the software program associated with the device ID to each of the one or more associated communication devices that require a firmware upgrade.

14. (Original) The method of claim 13, wherein receiving a device ID from each of one or more communication devices further comprises receiving a device ID that uniquely identifies the communication device.

15. (Previously presented) The method of claim 13, wherein receiving a device ID from each of the one or more associated communication devices further comprises receiving a device ID that identifies the associated communication device model.

16. (Previously presented) The method of claim 13, wherein receiving a device ID from each of the one or more associated communication devices further comprises receiving a device ID that identifies the associated communication device model and revision.

17. (Previously presented) The method of claim 13, wherein receiving a device ID from each of the one or more associated communication devices further comprises receiving a device ID that uniquely identifies the software program for the associated communication device.

18. (Previously presented) The method of claim 13, wherein receiving a device ID from each of the one or more associated communication devices further comprises receiving a device ID that uniquely identifies one or more software routines for the associated communication device.

19. (Original) The method of claim 13, further comprising:

updating a store of firmware at the communications management device.

20. (Previously presented) A method of operating a communications rack chassis with a management card and at least one communication card, comprising:

initializing the at least one communication card from routines stored on a boot PROM of the communication card;

receiving a device ID from each of the at least one communications card to determine whether any of the one or more associated communication devices require a firmware upgrade;

initiating a firmware upgrade without an administrator based on the device ID of each of the at least one communications card;

selecting a firmware program associated with the device ID of each of the at least one associated communication card that require a firmware upgrade; and

downloading the firmware program associated with the device ID to each of the at least one associated communication card that requires a firmware upgrade.

21. (Original) The method of claim 20, further comprising:

storing the downloaded firmware into a RAM memory of each of the at least one communication card.

22. (Original) The method of claim 20, further comprising:

storing the downloaded firmware into a non-volatile machine usable storage media of each of the at least one communication card.

23. (Original) The method of claim 20, further comprising:

sending a version identifier of a stored firmware from a non-volatile machine usable storage media of each of the at least one communication card to the management card.

24. (Original) The method of claim 20, wherein the boot PROM and device ID are stored on a single machine readable storage medium of each of the at least one communication card.

25. (Original) The method of claim 20, further comprising:
updating a repository of firmware stored on the management card.

26. (Original) The method of claim 25, wherein the repository of firmware is updated remotely across a communication link.

27. (Previously presented) A method of operating a communications system, comprising:

initializing one or more communication devices from routines stored on a boot PROM of each of the one or more communication devices;

receiving a device ID from each of one or more communication devices at a management device;

initiating a firmware upgrade without an administrator based on the device ID of each of the one or more communication devices;

selecting a software program associated with the device ID of each of the one or more communication devices that require a firmware upgrade; and

downloading the software program associated with the device ID to each of the one or more communication devices that require a firmware upgrade.

28. (Original) The method of claim 27, further comprising:

storing the downloaded software program into a RAM memory of each of the one or more communication devices.

29. (Original) The method of claim 27, further comprising:

storing the downloaded software program into a non-volatile machine usable storage media of each of the one or more communication devices.

30. (Original) The method of claim 27, further comprising:

sending a version identifier of a stored software program from a non-volatile machine usable storage media of each of the one or more communication devices to the management device.

31. (Original) The method of claim 27, wherein the boot PROM and device ID are stored on a single machine readable storage medium of each of the one or more communication devices.

32. (Previously presented) The method of claim 27, further comprising:

updating a repository of software programs stored on the management device.

33. (Original) The method of claim 32, wherein the repository of software program is updated remotely across a communication link of the communications system.

34. (Previously presented) A method of operating an asymmetric digital subscriber line (ADSL) communication device with a boot PROM, comprising:

initializing the ADSL communication device from routines stored on the boot PROM;

reading a device ID indicating a model and revision from the ADSL communication device;

sending the device ID to a management device over a communications link;

initiating a firmware upgrade without an administrator based on the device ID;

selecting a firmware for the communication device at the management device;

downloading the firmware to the ADSL communication device; and

running the firmware on the ADSL communication device.

35. (Original) The method of claim 34, further comprising:

storing the downloaded firmware into a RAM memory of the ADSL communication device.

36. (Original) The method of claim 34, further comprising:

storing the downloaded firmware into a non-volatile machine usable storage media of the ADSL communication device.

37. (Original) The method of claim 34, further comprising:

sending a version identifier of a stored firmware from a non-volatile machine usable storage media of the ADSL communication device to the management device.

38. (Original) The method of claim 34, wherein the boot PROM and device ID are stored on a single machine readable storage medium of the ADSL communication device.

39. (Original) The method of claim 34, wherein the device ID identifies a model and a revision of the ADSL communication device.

40. (Original) The method of claim 34, wherein sending the device ID to a management device over a communications link further comprises sending the device ID and configuration information.

69. (Previously presented) A machine-usable medium having machine-readable instructions stored thereon for execution by a processor of a telecommunication device to perform a method comprising:

initializing the telecommunication device from routines stored on a boot PROM of the telecommunications device;

reading a device ID indicating a model and revision from the telecommunication device;

sending the device ID to a management device over a communications link;

initiating a firmware upgrade without an administrator based on the device ID;

selecting a firmware for the telecommunications device at the management device;

downloading the selected firmware to the telecommunication device; and

running the firmware on the telecommunication device.

70. (Original) The machine-usable medium of claim 69, further comprising: storing the downloaded firmware into a RAM memory.

71. (Original) The machine-usable medium of claim 69, further comprising: storing the downloaded firmware into a non-volatile machine usable storage media.

72. (Original) The machine-usable medium of claim 71, wherein the non-volatile machine usable storage media is selected from the group consisting of a Flash memory device, an electrically erasable programmable read only memory (EEPROM) device, and a one time programmable (OTP) device.

73. (Original) The machine-usable medium of claim 71, wherein the boot PROM routines are stored on the non-volatile machine usable storage media.

74. (Original) The machine-usable medium of claim 71, wherein the boot PROM routines and device ID are stored on the non-volatile machine usable storage media.

75. (Previously presented) A machine-usable medium having machine-readable instructions stored thereon for execution by a processor of a telecommunications management device to perform a method comprising:

initializing one or more associated telecommunication devices from routines stored on a boot PROM;

receiving a device ID from each of one or more associated telecommunication devices;

initiating a firmware upgrade without an administrator based on the device ID of each of the one or more associated telecommunication devices;

selecting a firmware program associated with the device ID of each of one or more telecommunication devices that require a firmware upgrade; and

downloading the firmware program associated with the device ID to each of one or more telecommunication devices that require a firmware upgrade.

76. (Original) The machine-usable medium of claim 75, wherein the downloaded firmware is a diagnostic firmware.

77. (Original) The machine-usable medium of claim 75, further comprising: updating a repository of firmware stored on the telecommunication management device.

78. (Original) The machine-usable medium of claim 77, wherein the repository of firmware is updated remotely across a communication link.

79. (Original) The machine-usable medium of claim 75, further comprising: storing the downloaded firmware into a RAM memory of each of the one or more telecommunication devices.

80. (Original) The machine-usable medium of claim 75, further comprising: storing the downloaded firmware into a non-volatile machine usable storage media of each of the one or more telecommunication devices.

81. (Previously presented) In a telecommunication device having a boot PROM, a communications interface, a device ID storage media, and a processor coupled to the boot PROM, the device ID storage media, and the communications interface, a method of operating the telecommunication device, comprising:

initializing the telecommunication device from routines stored on the boot PROM;

reading a device ID indicating a model and revision from the telecommunication device;

sending the device ID to a management device over a communications link;

initiating a firmware upgrade without an administrator based on the device ID;

selecting a firmware at the management device;

downloading the firmware to the telecommunication device; and

running the firmware on the telecommunication device.

EVIDENCE APPENDIX

There is nothing to present in the Evidence Appendix.

RELATED PROCEEDINGS APPENDIX

There is nothing to present in the Related Proceedings Appendix.